1)Static route
2)Default route
3)Floating static route
4)Floating default route

**INTERFACE CONFIGURATION**
** R1**
```
int f0/0
ip address 192.168.1.17 255.255.255.240
no shutdown

int s0/0/0
ip address 192.168.1.94 255.255.255.252
encapsulation hdlc
clock rate 64000
no shutdown

int s0/0/1
ip address 192.168.1.81 255.255.255.252
encapsulation hdlc
clock rate 64000
no shutdown

int s0/2/0
ip address 10.0.0.2 255.0.0.0
encapsulation hdlc
no shutdown
```

** R2 **
```
int f0/0
ip address 192.168.1.65 255.255.255.240
no shutdown

int s0/0/0
ip address 192.168.1.93 255.255.255.252
encapsulation hdlc
no shutdown

int s0/0/1
ip address 192.168.1.90 255.255.255.252
encapsulation hdlc
clock rate 64000
no shutdown
```

** R3 **
```
int f0/0
ip address 192.168.1.33 255.255.255.240
no shutdown

int s0/0/0
ip address 192.168.1.82 255.255.255.252
encapsulation hdlc
no shutdown

int s0/0/1
ip address 192.168.1.85 255.255.255.252
encapsulation hdlc
clockrate 64000
no shutdown
```

```
** R4 **
int f0/0
ip address 192.168.1.49 255.255.255.240
no shutdown

int s0/0/0
ip address 192.168.1.89 255.255.255.252
encapsulation hdlc
no shutdown

int s0/0/1
ip address 192.168.1.86 255.255.255.252
encapsulation hdlc
no shutdown

** ISP Interface **
int s0/0/0
ip address 10.0.0.1 255.0.0.0
encapsulation hdlc
clock rate 64000
no shutdown

1)*** STATIC ROUTING ***
** R1 **
ip route 192.168.1.32 255.255.255.240 s0/0/1
ip route 192.168.1.84 255.255.255.252 s0/0/1
ip route 192.168.1.48 255.255.255.240 s0/0/1
ip route 192.168.1.88 255.255.255.252 s0/0/0
ip route 192.168.1.64 255.255.255.240 s0/0/0
end

** R2 **
ip route 192.168.1.16 255.255.255.240 s0/0/0
ip route 192.168.1.80 255.255.255.252 s0/0/0
ip route 192.168.1.32 255.255.255.240 s0/0/0
ip route 192.168.1.84 255.255.255.252 s0/0/1
ip route 192.168.1.48 255.255.255.240 s0/0/1
end

** R3 **
ip route 192.168.1.16 255.255.255.240 s0/0/0
ip route 192.168.1.92 255.255.255.252 s0/0/0
ip route 192.168.1.64 255.255.255.240 s0/0/0
ip route 192.168.1.48 255.255.255.240 s0/0/1
ip route 192.168.1.88 255.255.255.252 s0/0/1
end

** R4 **
ip route 192.168.1.64 255.255.255.240 s0/0/0
ip route 192.168.1.92 255.255.255.252 s0/0/0
ip route 192.168.1.16 255.255.255.240 s0/0/0
ip route 192.168.1.80 255.255.255.252 s0/0/1
ip route 192.168.1.32 255.255.255.240 s0/0/1
end


2)*** DEFAULT ROUTING ***
```

** ISP **
ip route 0.0.0.0 0.0.0.0 s0/0/0

** R1 **
ip route 0.0.0.0 0.0.0.0 s0/2/0

** R2 **
ip route 0.0.0.0 0.0.0.0 s0/0/0

** R3 **
ip route 0.0.0.0 0.0.0.0 s0/0/0

** R4 **
ip route 0.0.0.0 0.0.0.0 s0/0/0

3)**Floating static route**

(hear we creating extra path to reach from R4 to 192.168.1.16 network, when s0/0/0 interface go down then the second path will come up is s0/0/1, this we can do by chinging the AD value)

* R4 *
#ip route 192.168.1.16 255.255.255.240 s0/0/1 4

4)**Floating default route**

(hear we creating extra path to reach from R4 to ISP network, when s0/0/0 interface go down then the second path will come up is s0/0/1, this we can do by chinging the AD value)

* R4 *
#ip route 0.0.0.0 0.0.0.0 s0/0/1 5

*** verification ***
#show ip int brief
#show ip route
#show controllers s0/0/0  (to see serial DCE ro DTE)
#taceroute 192.168.1.50  (to trace path from source to destination)